

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/552,930  
Source: P4/10  
Date Processed by STIC: 10/24/05

# ***ENTERED***



PCT

## RAW SEQUENCE LISTING

DATE: 10/24/2005

PATENT APPLICATION: US/10/552,930

TIME: 10:52:18

Input Set : A:\FP-72201-PC.ST25.txt

Output Set: N:\CRF4\10242005\J552930.raw

```

3 <110> APPLICANT: Montana State University
4      Dratz, Edward A.
5      Mumey, Brendan M.
6      Jesaitis, Algirdas J.
8 <120> TITLE OF INVENTION: MAPPING DISCONTINUOUS ANTIBODY OR APTAMER EPITOPES FOR
PROTEIN
9      STRUCTURE DETERMINATION AND OTHER APPLICATIONS
11 <130> FILE REFERENCE: FP-72201-RMS
C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/552,930
C--> 14 <141> CURRENT FILING DATE: 2005-10-14
16 <150> PRIOR APPLICATION NUMBER: US 60/462,870
17 <151> PRIOR FILING DATE: 2003-04-14
19 <160> NUMBER OF SEQ ID NOS: 7
21 <170> SOFTWARE: PatentIn version 3.3
23 <210> SEQ ID NO: 1
24 <211> LENGTH: 8
25 <212> TYPE: PRT
26 <213> ORGANISM: Artificial
28 <220> FEATURE:
29 <223> OTHER INFORMATION: Antibody Epitope
31 <400> SEQUENCE: 1
33 Val Pro His Pro Thr Trp Met Arg
34 1      5
37 <210> SEQ ID NO: 2
38 <211> LENGTH: 372
39 <212> TYPE: PRT
40 <213> ORGANISM: Artificial
42 <220> FEATURE:
43 <223> OTHER INFORMATION: Antibody Epitope
46 <220> FEATURE:
47 <221> NAME/KEY: misc_feature
48 <222> LOCATION: (20)..(90)
49 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
51 <220> FEATURE:
52 <221> NAME/KEY: misc_feature
53 <222> LOCATION: (190)..(330)
54 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
56 <400> SEQUENCE: 2
58 Asp Glu Asp Glu Thr Thr Ala Leu Val Cys Asp Asn Gly Ser Gly Leu
59 1      5      10      15
W--> 62 Val Lys Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
63      20      25      30
66 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
67      35      40      45

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```

70 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
71      50                      55                      60
74 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
75 65                      70                      75                      80
78 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Tyr Asn Glu Leu Arg Val
79                      85                      90                      95
82 Ala Pro Glu Glu His Pro Thr Leu Leu Thr Glu Ala Pro Leu Asn Pro
83                      100                     105                     110
86 Lys Ala Asn Arg Glu Lys Met Thr Gln Ile Met Phe Glu Thr Phe Asn
87                      115                     120                     125
90 Val Pro Ala Met Tyr Val Ala Ile Gln Ala Val Leu Ser Leu Tyr Ala
91                      130                     135                     140
94 Ser Gly Arg Thr Thr Gly Ile Val Leu Asp Ser Gly Asp Gly Val Thr
95 145                     150                     155                     160
98 His Asn Val Pro Ile Tyr Glu Gly Tyr Ala Leu Pro His Ala Ile Met
99                      165                     170                     175
102 Arg Leu Asp Leu Ala Gly Arg Asp Leu Thr Asp Tyr Leu Xaa Xaa Xaa
103                      180                     185                     190
106 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
107                      195                     200                     205
110 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
111                      210                     215                     220
114 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
115 225                     230                     235                     240
118 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
119                      245                     250                     255
122 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
123                      260                     265                     270
126 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
127                      275                     280                     285
130 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
131                      290                     295                     300
134 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
135 305                     310                     315                     320
138 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ala Pro Pro Glu Arg Lys
139                      325                     330                     335
142 Tyr Ser Val Trp Ile Gly Gly Ser Ile Leu Ala Ser Leu Ser Thr Phe
143                      340                     345                     350
146 Gln Gln Met Trp Ile Thr Lys Gln Glu Tyr Asp Glu Ala Gly Pro Ser
147                      355                     360                     365
150 Ile Val His Arg
151      370
154 <210> SEQ ID NO: 3
155 <211> LENGTH: 8
156 <212> TYPE: PRT
157 <213> ORGANISM: Artificial
159 <220> FEATURE:
160 <223> OTHER INFORMATION: Antibody Epitope
162 <400> SEQUENCE: 3

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## RAW SEQUENCE LISTING

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164 Glu Gln Gln Val Ser Thr Ala Gln
165 1 5
168 <210> SEQ ID NO: 4
169 <211> LENGTH: 9
170 <212> TYPE: PRT
171 <213> ORGANISM: Artificial
173 <220> FEATURE:
174 <223> OTHER INFORMATION: Antibody Epitope
176 <400> SEQUENCE: 4
178 Glu Gln Gln Ala Ser Ala Thr Thr Gln
179 1 5
182 <210> SEQ ID NO: 5
183 <211> LENGTH: 10
184 <212> TYPE: PRT
185 <213> ORGANISM: Artificial
187 <220> FEATURE:
188 <223> OTHER INFORMATION: Stability Sequence
191 <220> FEATURE:
192 <221> NAME/KEY: misc_feature
193 <222> LOCATION: (3)..(6)
194 <223> OTHER INFORMATION: Xaa at positions 3-6 can be any amino acid, where up to 3 of
the
195 amino acids in positions 3-6 can be absent
197 <400> SEQUENCE: 5
W--> 199 Met Gly Xaa Xaa Xaa Xaa Gly Gly Pro Pro
200 1 5 10
203 <210> SEQ ID NO: 6
204 <211> LENGTH: 5
205 <212> TYPE: PRT
206 <213> ORGANISM: Artificial
208 <220> FEATURE:
209 <223> OTHER INFORMATION: linker
211 <400> SEQUENCE: 6
213 Gly Ser Gly Gly Ser
214 1 5
217 <210> SEQ ID NO: 7
218 <211> LENGTH: 4
219 <212> TYPE: PRT
220 <213> ORGANISM: Artificial
222 <220> FEATURE:
223 <223> OTHER INFORMATION: linker
225 <400> SEQUENCE: 7
227 Gly Gly Gly Ser
228 1

```

RAW SEQUENCE LISTING ERROR SUMMARY  
 PATENT APPLICATION: US/10/552,930

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Input Set : A:\FP-72201-PC.ST25.txt  
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**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:2; Xaa Pos. 20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38  
 Seq#:2; Xaa Pos. 39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57  
 Seq#:2; Xaa Pos. 58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76  
 Seq#:2; Xaa Pos. 77,78,79,80,81,82,83,84,85,86,87,88,89,90,191,192,193  
 Seq#:2; Xaa Pos. 194,195,196,197,198,199,200,201,202,203,204,205,206,207  
 Seq#:2; Xaa Pos. 208,209,210,211,212,213,214,215,216,217,218,219,220,221  
 Seq#:2; Xaa Pos. 222,223,224,225,226,227,228,229,230,231,232,233,234,235  
 Seq#:2; Xaa Pos. 236,237,238,239,240,241,242,243,244,245,246,247,248,249  
 Seq#:2; Xaa Pos. 250,251,252,253,254,255,256,257,258,259,260,261,262,263  
 Seq#:2; Xaa Pos. 264,265,266,267,268,269,270,271,272,273,274,275,276,277  
 Seq#:2; Xaa Pos. 278,279,280,281,282,283,284,285,286,287,288,289,290,291  
 Seq#:2; Xaa Pos. 292,293,294,295,296,297,298,299,300,301,302,303,304,305  
 Seq#:2; Xaa Pos. 306,307,308,309,310,311,312,313,314,315,316,317,318,319  
 Seq#:2; Xaa Pos. 320,321,322,323,324,325,326,327,328,329,330  
 Seq#:5; Xaa Pos. 3,4,5,6

**Invalid <213> Response:**

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7

**VERIFICATION SUMMARY**

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Input Set : A:\FP-72201-PC.ST25.txt

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L:13 M:270 C: Current Application Number differs, Replaced Current Application Number

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:62 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:16

M:341 Repeated in SeqNo=2

L:199 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0